

GenCore version 5.1.4\_p5\_4578  
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OM protein - protein search, using sw model

Run on: March 20, 2003, 05:08:40 ; Search time 37 Seconds

405.324 Million cell updates/sec

Title: US-09-867-958-1

Sequence: 1 MARQHARTLWYDRPMVFME.....PPAMDLDSDSDSADDATSN 156

Scoring table: BLOSUM62

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

```
Minimum DB seq length: 0
Maximum DB seq length: 20000000000
```

Post-processing: Minimum Match 0%

### Listing first 45 summaries

Database :

```
PIR_73:*
1:  pir1:*
2:  pir2:*
3:  pir3:*
4:  pir4:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

## SUMMARIES

Query	Result
No.	Score Match Length DB ID Description
1	347.5 40.9 160 2 A56311 progesterone recep
2	346.5 40.8 160 2 B56311 progesterone recep
3	125.5 14.8 186 2 T39230 cell cycle regula
4	121 14.3 262 2 T01305 hypercholesterol
5	114 13.4 175 2 T27543 hypercholesterol
6	99 11.7 216 2 S27382 hypercholesterol
7	91.5 10.8 252 2 A26125 heat shock protein
8	90 10.6 549 2 S37914 MIF2 protein
9	89.5 10.5 484 4 A33761 hypercholesterol
10	89.5 10.5 655 1 A43795 hypercholesterol
11	89.5 10.5 770 1 ORHUA4 Alzheimer's disease
12	88 10.4 408 2 C96502 Alzheimer's disease
13	88 10.4 848 2 E95092 aminopeptidase N
14	88 10.4 848 2 B97960 membrane alanyl
15	84.5 10.0 336 2 T40559 hypercholesterol
16	83.5 9.8 695 2 A27485 Alzheimer's disease
17	82.5 9.7 389 2 T00972 probable serpin
18	82 9.7 839 2 C97250 preprotein trans
19	81.5 9.6 1430 2 T27924 hypercholesterol
20	81 9.5 683 2 T21810 hypercholesterol
21	81 9.5 666 2 T21808 hypercholesterol
22	80.5 9.5 703 2 S08119 hypercholesterol
23	80.5 9.5 703 2 A44983 hypercholesterol
24	80 9.4 382 2 T37836 heat shock protein
25	80 9.4 420 1 S22418 heat shock protein
26	80 9.4 512 2 A55206 probable protein
27	80 9.4 521 2 A50933 calequestrin pre
28	80 9.4 571 2 S40933 sucrose/fructan
29	79 9.3 810 2 H88585 probable replicat
	695 2 S00550 protein ZK632.1
	Alzheimer's disease

30	77	9.1	2285	2	T12796	probable transglyc
31	76.5	9.0	353	2	T07805	alternative oxid
32	76	9.0	417	2	T22024	hypothetical prote
33	76	9.0	423	2	B72403	glucose-1-phosphat
34	76	9.0	2212	2	T28157	erythrocyte membra
35	75.5	8.9	747	2	JH0773	Alzheimer's diseas
36	75	8.8	798	2	S62791	probable lipoprote
37	75	8.8	827	2	T40394	conserved hypothet
38	75	8.8	1223	2	E88451	protein R10D2.1 [i
39	74.5	8.8	225	2	A83854	hypothetical prote
40	74.5	8.8	500	2	S50508	ANP1 protein - yea
41	74.5	8.8	700	2	S57415	Hsp83 protein - Le
42	74	8.7	267	2	A40269	cyclin C - fruit f
43	74	8.7	409	1	J01396	caldesmonin prec
44	74	8.7	459	1	T21097	hypothetical prote
45	74	8.7	482	2	S34275	protein disulfide-

## ALIGNMENTS

## RESULT 1

progesterone receptor-related protein p23 - human  
C:Species: Homo sapiens (man)  
C:Date: 19-Oct-1995 #sequence\_revision 19-Oct-1995 #text\_change 20-Jun-2000  
C:Accession: A56211  
R:Johnson, J. L.; Belto, T. G.; Kroc, C. J.; Toft, D. O.  
MOL. CELL. BIOL. 14, 1956-1963, 1994  
A:Title: Characterization of a novel 23-kilodalton protein of inactive progesterone  
A:Reference number: A56211; PMID:94158868; PMID:8114727  
A:Accession: A56211  
A:Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-160 <100%>  
A:Cross-references: GB:L24804; GB:L24805; NID:g438651; PIDN:AAA18537.1; PID:g438652  
C:Genetics:  
A:Gene: CDB:BCRP  
A:Cross-references: GDB:337371  
C:Superfamily: Caenorhabditis elegans hypothetical protein ZC395.10  
C:Keywords: steroid hormone receptor

Query Match	40.9%;	Score 347.5;	DB 2;	Length 160;
Best Local Similarity	43.4%;	Pred. No. 5.8e-25;		
Matches 66;	Conservative 30;	Mismatches 53;	Indels 3;	Gaps 2;

Dy 4 QHARTLWDRPMYFMFCEVSDSTDVHLIEDRIVFSC-KNADGYELNEEFYAKVNS 62  
| | ||| ||||| ||| : : || : : : :  
Db 2 QASAKWTDRDYFIIEFCVEDSKDVNVNFESKLTFCSCGSGDNPKHLNELDFFHCIDP 61

```
QY      63 KQSQDKRSSRSITCEVFRKKWKEKVVAMPRLTKEDLIKPVWLSDFDENNRDWEGBDEMELAHVE 12
        ||:||:||||:|::|||:||||| | |||||:||:|||| | :||:|
Db      62 MDSKHKRIPDRSIICCLRKGESGQSWPRLTKERAKLNLWSVDFFNNMKDWEDSDDEMSNFD 12
```

Dy 123 HVAELKKVSTKRPP--PAMDDLDDSDSDADD 152  
 Db 122 RFSEMMNNMGDEDEDVDFPEVDGADDDSDSDDD 153

## 2

progesterone receptor-related protein p23 - chicken  
C:Species: Gallus gallus (chicken)  
C:Date: 19-Oct-1995 #sequence\_revision 19-Oct-1995 #text\_change 20-Jun-2000  
C:Accession: B56211  
R:Johnson, J.L.; Belto, T.G.; Krcso, C.J.; Toft, D.O.  
Mol. Cell. Biol. 14, 1956-1963, 1994  
A:Title: Characterization of a novel 23-kilodalton protein of inactive progesterone  
A:Reference number: A56211; MUID:94158068; PMID:8114727  
A:Accession: B56211  
A:Status: preliminary  
A:Molecule type: mRNA; protein  
A:Residues: 1-160 <CDS>







A:Reference number: A29030; MUID:87231971; PMID:3035574  
A:Accession: A29030  
A:Molecule type: mRNA  
A:Residues: 284-288,'V',365-646,'E',648-770 <ROB>  
A:Cross-references: GB:M16765; NID:q178539; PIDN:AAA51722.1; PID:q178540  
A:Note: the authors translated the codon GAG for residue 647 as Asp  
R:Goldhaber, D.; Lemman, M.I.; McBride, O.W.; Saffioti, U.; Gajdusek, D.C.  
Science 235, 877-880, 1987  
A:Title: Characterization and chromosomal localisation of a cDNA encoding brain amyloid  
A:Reference number: A47584; MUID:87120328; PMID:3810169  
A:Accession: A47584  
A:Molecule type: mRNA  
A:Residues: 674-756,'S',758-770 <GOL>  
A:Cross-references: GB:M15533; NID:q178706; PIDN:AAA35540.1; PID:q178707  
A:Experimental source: brain  
R:Tanzi, R.E.; Gusella, J.F.; Watkins, P.C.; Bruns, G.A.P.; St George-Hyslop, P.; Van Ken  
Science 235, 880-884, 1987  
A:Title: Amyloid beta protein gene: cDNA, mRNA distribution, and genetic linkage near th  
A:Reference number: A47585; MUID:87120329; PMID:2949367  
A:Accession: A47585  
A:Molecule type: mRNA  
A:Residues: 674-703 <TANI>  
A:Cross-references: GB:M15532; NID:q177957; PIDN:AAA51564.1; PID:q177958  
R:Dyck, T.; Weidemann, A.; Multhaup, G.; Salbaum, J.M.; Lemaire, H.G.; Kang, J.; Muelld  
EMBO J. 7, 949-957, 1988  
A:Title: Identification, transmembrane orientation and biogenesis of the amyloid A4 pre  
A:Reference number: S02638; MUID:88296437; PMID:2900137  
A:Accession: S02638  
A:Molecule type: mRNA  
A:Residues: 672-678 <DYR>  
R:Tanzi, R.E.; McClatchey, A.I.; Lamperti, E.D.; Villa-Komaroff, L.; Gusella, J.F.; Neve  
Nature 331, 528-530, 1988  
A:Title: Protease inhibitor domain encoded by an amyloid protein precursor mRNA associat  
A:Reference number: S00707; MUID:88122640; PMID:2893290  
A:Accession: S00707  
A:Molecule type: mRNA  
A:Residues: 286-344,'I',365-366 <TAN2>  
A:Cross-references: EMBL:X06982; NID:928817; PIDN:CAA30042.1; PID:g929612  
A:Experimental source: promyelocytic leukemia cell line HL60  
A:Note: alternative splice form APP(751)  
R:Porte, P.; Gonzalez-Demhitt, P.; Schilling, J.; Miller, J.; Hsu, D.; Greenberg, B.; De  
Nature 331, 525-527, 1988  
A:Title: A new A4 amyloid mRNA contains a domain homologous to serine proteinase inhibit  
A:Reference number: S00925; MUID:88122639; PMID:2893289  
A:Accession: S00925  
A:Molecule type: mRNA  
A:Residues: 1-344,'I',365-770 <PO2>  
A:Cross-references: GB:X06889; EMBL:Y00297; NID:g28720; PIDN:CAA30050.1; PID:g28721  
A:Note: alternative splice form APP(751)  
R:Kitaguchi, N.; Takahashi, Y.; Tokushima, Y.; Shiojiri, S.; Ito, H.  
Nature 331, 530-532, 1988  
A:Title: Novel precursor of Alzheimer's disease amyloid protein shows protease inhibitor  
A:Reference number: A38949; MUID:88122641; PMID:2893291  
A:Accession: A38949  
A:Molecule type: mRNA  
A:Residues: 287-367 <KIT>  
A:Cross-references: GB:X06981; NID:g28816; PIDN:CAA30041.1; PID:g929611  
A:Experimental source: glioblastoma cell line  
A:Note: alternative splice form APP(770)  
R:Vitek, M.P.; Rasool, C.G.; de Sauvage, F.; Vitek, S.M.; Bartus, R.T.; Beer, B.; Ashton  
Brain Res. Mol. Brain Res. 4, 121-131, 1988  
A:Title: Absence of mutation in the beta-amyloid cDNAs cloned from the brains of three f  
A:Reference number: A30320  
A:Accession: A30320  
A:Molecule type: mRNA  
A:Residues: 284-288,'V',365-770 <VIT1>  
A:Accession: B30320  
A:Status: not compared with conceptual translation  
A:Molecule type: mRNA  
A:Residues: 122-288,'V',365-770 <VIT2>  
A:Accession: C30320  
A:Status: not compared with conceptual translation

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A:Molecule type: mRNA
A:Residues: 606-770 <YIT3>
R:Zain, S.B.; Sallin, M.; Chou, W.G.; Sajdel-Sulkowska, E.M.; Majocha, R.E.; Marotta,
Proc. Natl. Acad. Sci. U.S.A. 85, 929-933, 1988
A:Title: Molecular cloning of amyloid cDNA derived from mRNA of the Alzheimer disease
A:Reference number: A31087; MUID:88124954; PMID:2893379
A:Accession: A31087
A:Molecule type: mRNA
A:Residues: 507-770 <A1>
A:Cross-references: GB:M18734; NID:g178572; PIDN:AA51726.1; PID:g178573
A>Note: the authors translated the codon GAA for residue 599 as Gly, ACC for residue
8 as Val, GCG for residue 609 as Asn, AAT for residue 610 as Gly, and GGT for resid
A>Note: the cited Genbank accession number, J03594, is not in release 101.0
R:Masters, C.L.; Multaup, G.; Simms, G.; Potgiesser, J.; Martins, R.N.; Beyreuther

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RESULT 12
C96502
hypothetical protein F28H19.9 [imported] - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C:Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 23-Mar-2001
C:Accession: C96502
R:Thellogis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.
  Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.;
  nansen, N.F.; Hughes, B.; Hultzer, L.
  Nature 408, 816-820, 2000
A:Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.
  C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Malt, R.;
  Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
  A:Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.
  ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
  A>Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
  A:Reference number: A06141; MUID:21016719; PMID:11130712
  A:Accession: C96502
  A:Status: preliminary
  A:Molecule type: DNA
  A:Residues: 1-408 <STO>
  A:Cross-references: GB:A005173; NID:q7523665; PIDN:AA63105.1; GSPDB:GND00141
  C:Genetics:
  A:Gene: F28H19.9
  A:Map position: 1
  C:Superfamily: Arabidopsis hypothetical protein F7N22.18

Query Match          10.4%; Score 88; DB 2; Length 408;
Best Local Similarity 20.7%; Pred. No. 1.7;
Matches 41; Conservative 25; Mismatches 50; Indels 82; Gaps 9

Oy  8  TLIMRPMVVFVEPCVEDSTDVHVLIEDRIYF-----SKNADG-----V 48
      |||:|-----D|:|||:|-----|:|:|
Db  65  TLWFD-----D|STDAATV-----RIIFEDIKEPHANWSQTSKATIDWYETFA 109
      |||:|-----|:|:|:|-----|:|:|:|-----|:|:|:|-----|:|:|:|
Oy  49  ELYN-----EIEFYAKVSKSDOKRSSRSTICFPRKKEKRVAMPRLTKEDIKPVW 99
      :||:|-----||:|:|:|-----|:|:|:|-----|:|:|:|-----|:|:|:|
Db  110  QYIMNDRSINKRVRYEFLKLS-----RNSDQVSRMGKMKK-----GDEAKPKW 156
      :||:|-----|:|:|:|-----|:|:|:|-----|:|:|:|-----|:|:|:|
Oy  100  LSVDFD-----WRDMEGDENELAHVERHYELLKVS-----T 133
      :||:|-----|:|:|:|-----|:|:|:|-----|:|:|:|-----|:|:|:|

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